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10/047,812	01/14/2002	Yasuki Nakajima		4740

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EXAMINER
KANG, ROBERT N

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/047,812	NAKAJIMA, YASUKI
	Examiner	Art Unit	
	Robert N. Kang	2622	RNK

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 November 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-27</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-27</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 August 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/2/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election with traverse of Group I, drawn to an image processing apparatus, in the reply filed on 11/17/2005 is acknowledged. The traversal is on the ground(s) that the search and examination of all pending claims of Groups I and II can be made without serious burden. This is not found persuasive because Group I pertains to an invention for setting printing parameters, while Group II pertains to an invention for setting display parameters. The two distinct inventions are classified in separate classes which are handled by two separate workgroups within the Patent & Trademark Office; therefore, for the invention to be examined by one skilled in the art, two examiners are required. Furthermore, if the prior art search, as the attorney has stated, "can be made without serious burden," it seems curious that the IDS submitted by the applicant contains no references pertaining to automatic image display. Therefore, it is likely that the applicant and/or attorney himself did not find it reasonable to search both classes of references.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 27 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim recites "a storage medium that stores

program codes of the method recited in claim 26." The MPEP requires that the storage

medium be readable or executable by a computer. Additionally, the term "that stores" is

subject to some interpretation by various examiners, it has been suggested that any

storage medium *can* store a program code, and that this possible ambiguity be removed

by replacing "that stores" with "storing."

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

4.   Claims 1, 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Murata

(US-Pub No: US 2001/0043340 A1).

With regards to claims 1 and 12, Murata discloses in paragraph [0017], lines 5-

11, a digital copying machine, with "a means for printing an image according to given

image data, means for accessing a removable storage medium (e.g. a reader/writer of a

memory card), and means for controlling the printing means according to output control

data stored in the storage medium so that the printing means can print an image

according to image data stored in the storage medium." This digital copying machine

qualifies as "an image processing apparatus what permits loading and unloading of a

recording medium that stores image data," as required by the preamble of claim 1.

Regarding limitations 1 and 2, Murata discloses in paragraph [0068], lines 2-6, when "a print job command file storing print control data and an image file to be printed exist in the memory card installed in PC card slot 89, this digital copying machine prints image data according to the print control data." This print control data, which details the available functions of the printer, is stored onto the memory card initially by the printer itself, as Murata states in paragraph [0072], lines 2-5, "a user previously installs his memory card in the digital copying machine and downloads a print function information file to the memory card." Therefore, Murata's image processing apparatus contains "an analysis unit that analyzes print setting items recorded by a printer and stored in the recording medium; said print setting items relate to the function which the printer accommodates."

Finally, regarding limitation 3, Murata does not expressly disclose "a generation unit that generates additional data relating to print setting required on printing by the printer based on the print setting items analyzed by the analysis unit." However, Murata discloses in paragraph [0100], lines 10-16, the operation of his system in the case that a mechanical finisher 222 is installed, stating, "the print function information of the copying machine can be downloaded to the storage medium, so that a user can readily set all the print functions using the dialog box for setting a print function displayed on the personal computer even if he does not fully know the print functions of individual copying machines." Additionally, although Murata does not expressly specify the scenario wherein the print functions on the memory card do not match the print function of the printer, because the purpose of Murata's invention, as stated in paragraph [0023],

lines 1-5, is to allow "a user [to] effectively utilize all the functions of a digital copying machine" without knowledge of each particular machine, it is assumed by the Examiner that in the case of a print function mismatch, the current printer functions are written to the memory card to ensure the functionality of Murata's invention. Therefore, Murata's invention possesses "a generation unit that generates additional data relating to print setting required upon printing by the printer based on the print setting items analyzed by the analysis unit."

Because Murata's invention expressly anticipates the apparatus as disclosed in claim 1, it also inherently anticipates the method of image processing utilized by the image processing apparatus, as disclosed in claim 12.

Regarding claims 2 and 13, Murata states in paragraph [0072], lines 2-5, "a user previously installs his memory card in the digital copying machine and downloads a print function information file to the memory card." Therefore, Murata's invention meets the requirement that "print setting items are recorded by the printer."

Because Murata's invention expressly anticipates the apparatus as disclosed in claim 2, it also inherently anticipates the method of image processing utilized by the image processing apparatus, as disclosed in claim 13.

With regards to claims 6 and 17, Murata depicts in Figure 5 a selection screen which allows the user to select an image filename or image file format to be printed. Murata discloses in paragraph [0068] "if a print job command file storing print control

data and an image data file to be printed exist in the memory card..." This implies that a detection of both a print job command file and an image data file by the image forming apparatus. Therefore, Murata's invention "comprises an image sensing unit."

Because Murata's invention expressly anticipates the apparatus as disclosed in claim 6, it also inherently anticipates the method of image processing utilized by the image processing apparatus, as disclosed in claim 17.

5.		The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.		Claims 23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ozawa (US-PAT 6,115,137).

Regarding claims 23 and 26, Ozawa discloses a digital camera 10, which communicates to a printer 12, via infrared ray communication interfaces 16 and 18, respectively, through wireless transmission of data via a free space optical channel 14.

Regarding limitation 1, Ozawa discloses a CPU 20, which, as depicted in figure 12, S72, sends a request of set paper size information the printer, to which the printer responds in S73, wherein the set of available paper sizes from the printer is received. Thus the CPU qualifies as "an analysis unit that analyzes print setting items transmitted from a printer via wireless communication."

Regarding limitation 2, Ozawa discloses in column 8, lines 66-68, "FIG. 13 shows

the paper size selection window. The user can manually select a desired paper size

(A4, B5, and A5 in FIG. 13)." These commands are sent back to the printer as print

setting commands; therefore, Ozawa's invention includes "a generation unit that

generates additional data relating to print setting required upon printing by the printer

based on the print setting items analyzed by the analysis unit."

Therefore Ozawa's invention meets the requirements of the apparatus claim 23

as well as its counterpart method claim 26.

Regarding claim 24, Ozawa states in column 9, lines 1-6, "the user can select

one of an equal magnification print mode for printing an image independently of paper

size, and an automatic variable magnification mode for automatically converting the size

of an image in correspondence with paper size and printing the size-converted mode."

Therefore, the print setting items include a zooming instruction, which is "at least one" of

the instructions listed.

With regards to claim 25, Ozawa discloses a digital camera 10, which

communicates to a printer 12, via infrared ray communication interfaces 16 and 18,

respectively, through wireless transmission of data via a free space optical channel 14.

Ozawa discloses a CPU 20, which, as depicted in figure 12, S72, sends a request of set

paper size information the printer, to which the printer responds in S73, wherein the set

of available paper sizes from the printer is received. Since the paper size qualifies as

"print setting information," Ozawa's invention expressly anticipates "a digital camera,

wherein the print setting items are transmitted through communication with the printer."

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 3-5 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Murata (US-Pub No: US 2001/0043340 A1).

Murata's invention meets the requirements of independent claims 1 and 12, upon

which claims 3-5 and 14-16, respectively, depend.

Murata does not expressly disclose a specific file structure wherein the print

setting items and automatic print data are stored in separate directories. Murata's

invention, however, is able to discern between a print setting item and automatic print

data (image data) automatically.

The directory file structure was well known at the time of invention (official

notice), as it is one of the fundamental structures in hierarchical file storage and

organization. Specifically, it is used as an organizational tool for increasing ease-of-use

in operations which require human interaction.

Therefore, it would have been obvious to modify Murata's system in such a way

that "the recording medium includes a directory for managing the print setting items

stored by the printer independently of the image data," as disclosed by claims 3 and 14; furthermore, because the "image data" in Murata's system is printed automatically by the image forming device, it qualifies as "automatic print data," and is therefore stored in its own directory as well, as required by claims 4 and 15. Therefore, the applicant's invention is unpatentable over Murata's system with a fairly trivial file organization modification.

The motivation for this modification would be to allow clear and concise organizational file paths user management of both the print setting items and the image data itself.

Thus, it would have been obvious to modify Murata's image forming apparatus to obtain the invention as disclosed in claims 3 and 4, as well as the method utilized by the apparatus as disclosed in claims 14 and 15.

9.   Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (US-Pub No: US 2001/0043340 A1) in view of Canon Corporation (reference U).

The modified Murata system, which stores print setting data and automatic print (image data or image data tags) in separate directories on a memory card, meets the requirements of claims 4 and 15, upon which claims 5 and 16, respectively, depend.

Murata does not specifically disclose the use of DPOF (Digital Print Order Format) files as the "automatic print data."

Reference U states on page 3, paragraph 2, "in October 1998, four companies including Canon, Fuji Photo Film, Eastman Kodak, and Matsushita Electric Industrial,

jointly announced a new standard digital printing format called DPOF (Digital Print Order

Format). Therefore, the format was well known in the art to one of normal skill in the art

more than one year before the time of invention.

Therefore, it would have been obvious to modify Murata's system to utilize a

DPOF file for the automatic print data.

The motivation behind this modification would be to allow cross platform

compatibility, "thereby minimizing cumbersome print ordering processes at the digital

service photo-labs as well as for personal printing," as stated in page 3, paragraph 2 of

reference U.

Thus, it would have been obvious to modify the modified Murata system as

disclosed above to utilize DPOF files as taught by reference U to obtain the invention as

disclosed in claim 5, as well as the method utilized by said invention, as disclosed in

claim 16.

10.   Claims 7, 9, 10, 18, 20, and 21 rejected under 35 U.S.C. 103(a) as being obvious

over Murata (US-Pub No: US 2001/0043340 A1) in view of Ozawa (US-PAT 6,115,137).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome

by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not an

invention "by another"; (2) a showing of a date of invention for the claimed subject

matter of the application which corresponds to subject matter disclosed but not claimed

in the reference, prior to the effective U.S. filing date of the reference under 37 CFR

1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and

reference are currently owned by the same party and that the inventor named in the

application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer

in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under

35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claims 7 and 18, Murata discloses a digital copying machine that

permits the loading and unloading of a recording medium. When selecting images to be

printed, a user inserts the medium into a PC, wherein "the printer driver refers to the

print function information file stored in the memory card to display a dialog box for

setting the print function of the digital copying machine on the personal computer

display," as disclosed by Murata in paragraph [0092], lines 12-16.

Regarding limitation 1, Murata discloses in paragraph [0072], lines 2-5, "a user

previously installs his memory card in the digital copying machine and downloads a print

function information file to the memory card." Therefore, it possesses a "recording unit

that records print setting items according to a specification of the printing unit in the

recording medium."

In regards to limitation 2, Murata depicts in figure 5 the dialog box displayed to

the user for defining automatic print control settings. Among these settings are the level

of gray levels and the compression used for the file. Murata states in paragraph [0097],

lines 1-5, "CPU 85 refers to the image data file name in the print job command file to

read the image data file from the memory card for printing. If the image data is

compressed, the CPU 85 stores the image data into page memory 84 using

compressor/expander 86." Therefore, the "image processing unit performs image

processing (either grey level quantization or decompression) according to the automatic

print data read from the recording medium," as required by limitation 2.

With regards to limitation 3, Murata discloses a CPU 85 which, as disclosed in

paragraph [0096], "analyzes the print job command file and performs setting required for

the control circuits of the laser printer part" and prints the document. This meets the

requirements that the apparatus contain "a control unit that controls a printing process

to be performed by the printing unit of the image data processed by the image

processing unit based on the automatic print data recorded in the recording medium."

Murata does not disclose that the recording medium "is mountable on a digital

camera and stores image data photographed by the digital camera." His invention

discloses an image coming from a personal computer and stored on a removable media

card.

Ozawa, in his description of prior art in column 1, lines 30-32, states "an image

sensed by the digital camera is temporarily stored as image data in a flash memory

attached to the digital camera 110." Furthermore, removable flash memory in digital

cameras was well known at the time of invention to those of normal skill in the art.

Murata and Ozawa are combinable because they both deal with transferring print

settings from a printer to/from a device for digital image printing.

Therefore, it would have been obvious to one of normal skill in the art at the time

of invention to replace the personal computer of Murata's system with a digital camera

with removable flash memory as taught by Ozawa and as was well known in the

industry.

The motivation for this modification would be to allow seamless printing from a

digital camera to an image forming apparatus without the use of a personal computer.

Thus, it would have been obvious at the time of invention to combine Murata and

Ozawa to obtain the invention as disclosed in claim 7 as well as the method utilized by

said invention as disclosed in claim 18. The aforementioned Murata/Ozawa

combination is utilized for the remaining claim rejections in this section.

With regards to claims 9 and 20, Murata discloses in paragraph [0092], lines 9-

11, "a memory card to which a print function information file is downloaded." This

memory card contains information written by the printer to be utilized, and thus the "print

setting items include print function data of the printing unit," as required by claims 9 and

20.

In regards to claims 10 and 21, Murata depicts in figure 5 a display panel

displayed to the user for selecting parameters which comprise the print function data.

Among these settings are "BothSidePrinting" and "Staple" with various

"StaplePositions." Therefore, "the print function data includes at least one of a staple function data and two-side print function data," as required by claims 10 and 21.

11.   Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (US-Pub No: US 2001/0043340 A1) in view of Ozawa (US-PAT 6,115,137).

The aforementioned Murata/Ozawa combination meets the requirements of claims 7 and 18, upon which the rejected claims depend.

Murata does not expressly disclose a specific file structure wherein the print setting items and automatic print data are stored in separate directories. Murata's invention, however, is able to discern between a print setting item and automatic print data (image data) automatically.

The directory file structure was well known at the time of invention (official notice), as it is one of the fundamental structures in hierarchical file storage and organization. Specifically, it is used as an organizational tool for increasing ease-of-use in operations which require human interaction.

Therefore, it would have been obvious to modify the Murata/Ozawa system in such a way that "the recording unit records the print setting items in a directory independent of a directory that stores the image data," as disclosed by claims 8 and 19.

The motivation for this modification would be to allow clear and concise organizational file paths user management of both the print setting items and the image data itself.

Thus, it would have been obvious to modify Murata's image forming apparatus to obtain the invention as disclosed in claims 3 and 4, as well as the method utilized by the apparatus as disclosed in claims 14 and 15.

12.   Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata (US-Pub No: US 2001/0043340 A1) in view of Ozawa (US-PAT 6,115,137) further in view of Canon Corporation (reference U).

The aforementioned Murata/Ozawa combination meets the requirements of claims 7 and 18, upon which the rejected claims depend.

Murata does not specifically disclose the use of DPOF (Digital Print Order Format) files as the "automatic print data."

Reference U states on page 3, paragraph 2, "in October 1998, four companies including Canon, Fuji Photo Film, Eastman Kodak, and Matsushita Electric Industrial, jointly announced a new standard digital printing format called DPOF (Digital Print Order Format). Therefore, the format was well known in the art to one of normal skill in the art more than one year before the time of invention.

Therefore, it would have been obvious to modify Murata's system to utilize a DPOF file for the automatic print data.

The motivation behind this modification would be to allow cross platform compatibility, "thereby minimizing cumbersome print ordering processes at the digital service photo-labs as well as for personal printing," as stated in page 3, paragraph 2 of reference U.

Thus, it would have been obvious to modify the Murata/Ozawa system as disclosed to utilize DPOF files as taught by reference U in order to obtain the invention as disclosed in claim 11, as well as the method utilized by said invention, as disclosed in claim 22.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Anderson (US-PAT 6,163,816) discloses a system and method for retrieving capability parameters in an electronic imaging device. Yamamoto (US-PAT 5,072,310) discloses an IC card for an image processor for storing image data. DeHority (US-PAT 5,129,639) discloses a printer configuration control system which compares the print job requirements to the printer capability and determines the best match with regards to stapling, folding, and stacking. Rao (US-PAT 5,930,358) discloses a device with a nonvolatile memory for storing user changeable operating parameters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert N. Kang whose telephone number is (571) 272-0593. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

RNK

TWYLER LAMB
PRIMARY EXAMINER